

**Amendments to the Claims:**

Claims 1-162 (canceled)

5 163. (currently amended) A chip package comprising:

~~a silicon substrate;~~

a first polymer layer;

a die between a first portion of said first polymer layer and a second portion of said  
10 first polymer layer, wherein said die has a top surface substantially coplanar with a top  
surface of said first portion and with a top surface of said second portion;

~~an adhesive material joining a backside of said die to said silicon substrate;~~

~~a first polymer layer on said silicon substrate, wherein said die is in a first opening in~~  
~~said first polymer layer;~~

a second polymer layer on said top surface ~~a front side~~ of said die and on said top  
15 surfaces of said first and second portions; ~~polymer layer;~~

a first patterned metal layer over ~~on~~ said second polymer layer, ~~and over said front~~  
~~side top surface~~ of said die and over said top surfaces of said first and second portions,  
~~first polymer layer,~~ wherein said first patterned metal layer is connected to said die  
20 patterned metal layer comprises electroplated copper, and wherein said first patterned  
metal layer comprises at least a part of a passive device comprising a portion directly over  
said top surface of said first portion;

a third polymer layer ~~over~~ on said first patterned metal layer, over said second  
polymer layer, over said ~~front side top surface~~ of said die and over said top surfaces of  
25 said first and second portions; and first polymer layer;

~~a second patterned metal layer on said third polymer layer, over said front side of~~  
~~said die and over said first polymer layer, wherein said second patterned metal layer is~~  
~~connected to said first patterned metal layer through a third opening in said third polymer~~

~~layer, and wherein said second patterned metal layer comprises electroplated copper;  
an insulating layer on said second patterned metal layer, on said third polymer layer,  
over said front side of said die and over said first polymer layer, wherein a fourth opening  
in said insulating layer is over a pad of said second patterned metal layer and exposes said~~  
5 ~~pad; and~~

~~a metal solder bump over said pad and directly over said top surface of said first  
portion, polymer layer, wherein said solder metal bump is connected to said pad die  
through said first patterned metal layer. fourth opening.~~

10 164. (currently amended) The chip package in claim 163, wherein said passive device  
comprises further comprising a resistor, comprising a portion directly over said first  
polymer layer.

15 165. (currently amended) The chip package in claim 163, wherein said passive device  
comprises further comprising a capacitor, comprising a portion directly over said first  
polymer layer.

166. (previously presented) The chip package in claim 163, wherein said second polymer  
layer comprises polyimide.

20 167. (previously presented) The chip package in claim 163, wherein said second polymer  
layer comprises benzocyclobutene (BCB).

25 168. (currently amended) The chip package in claim 163 further comprising a second  
patterned metal layer on said third polymer layer, over said top surface of said die and  
over said top surfaces of said first and second portions, wherein said second patterned  
metal layer comprises electroplated copper, wherein said second patterned metal layer is  
connected to said first patterned metal layer through an opening in said third polymer

layer, and wherein said metal bump is connected to said first patterned metal layer  
through said second patterned metal layer. ~~wherein said die comprises a first contact~~  
~~point under said second opening and exposed by said second opening, and a second~~  
~~contact point under a fifth opening in said second polymer layer and exposed by said fifth~~  
5 ~~opening, and wherein said first contact point is connected to said second contact point~~  
~~through said first patterned metal layer.~~

169. (previously presented) The chip package in claim 163, wherein said third polymer  
layer comprises polyimide.

170. (previously presented) The chip package in claim 163, wherein said third polymer  
layer comprises benzocyclobutene (BCB).

171. (currently amended) The chip package in claim 163, wherein said metal bump  
15 comprises a solder. ~~further comprising a passive device over said second polymer layer.~~

172. (currently amended) The chip package in claim 163, 171, wherein said passive  
device comprises an inductor, ~~over said second polymer layer.~~

20 173. (currently amended) The chip package in claim 163, 171, wherein said metal bump  
comprises gold. ~~passive device comprises a capacitor over said second polymer layer.~~

174. (currently amended) The chip package in claim 163, 171, wherein said passive  
device comprises a waveguide. ~~resistor over said second polymer layer.~~

25 175. (currently amended) The chip package in claim 163, 171, wherein said passive  
device comprises a filter, ~~over said second polymer layer.~~

176. (currently amended) The chip package in claim 163 further comprising a substrate under said die and under said first and second portions. ~~an inductor comprising a portion directly over said first polymer layer.~~

5 177. (currently amended) The chip package in claim 176, ~~163~~ wherein said substrate comprises silicon. ~~further comprising a filter comprising a portion directly over said first polymer layer.~~

178. (currently amended) The chip package in claim 163, wherein said first polymer layer  
10 comprises an epoxy.

179. (currently amended) A chip package comprising:

~~a silicon substrate;~~

a first polymer layer;

15 a die between a first portion of said first polymer layer and a second portion of said first polymer layer, wherein said die has a top surface substantially coplanar with a top surface of said first portion and with a top surface of said second portion;

~~an adhesive material joining a backside of said die to said silicon substrate;~~

~~a first polymer layer on said silicon substrate, wherein said die is in a first opening in  
20 said first polymer layer;~~

a second polymer layer on said top surface ~~a front side~~ of said die and on said top surfaces of said first and second portions; ~~polymer layer, wherein a second opening in said second polymer layer is over a first pad of said die and exposes said first pad, and a third opening in said second polymer layer is over a second pad of said die and exposes  
25 said second pad; and~~

a patterned metal layer over ~~on~~ said second polymer layer, over said top surface ~~front side~~ of said die and over said top surfaces of said first and second portions, ~~polymer layer, wherein said patterned metal layer comprises electroplated copper, wherein said patterned~~

metal layer is connected to a said first metal pad of said die through a first opening in said second polymer layer, and to ~~and~~ a second metal pad pads of said die through said a  
second opening in said second polymer layer, ~~and third openings, and~~ wherein said first  
metal pad is connected to said second metal pad through said patterned metal layer; and -  
5 a metal bump directly over said top surface of said first portion, wherein said metal  
bump is connected to said die through said patterned metal layer.

180. (currently amended) The chip package in claim 179, wherein said first polymer layer  
comprises an epoxy.

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181. (currently amended) The chip package in claim 179, wherein said metal bump  
comprises a solder, further comprising a capacitor comprising a portion directly over said  
first polymer layer.

15 182. (previously presented) The chip package in claim 179, wherein said second polymer  
layer comprises polyimide.

183. (previously presented) The chip package in claim 179, wherein said second polymer  
layer comprises benzocyclobutene (BCB).

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184. (currently amended) The chip package in claim 179 further comprising a third  
polymer layer on said patterned metal layer, ~~on over~~ said second polymer layer, over said  
~~front side top surface~~ of said die and over said top surfaces of said first and second  
portions, polymer layer.

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185. (previously presented) The chip package in claim 184, wherein said third polymer  
layer comprises polyimide.

186. (previously presented) The chip package in claim 184, wherein said third polymer layer comprises benzocyclobutene (BCB).

187. (currently amended) The chip package in claim 179, wherein said patterned metal  
5 layer comprises a ground bus connecting said first and second metal pads through said first and second ~~and third~~ openings.

188. (currently amended) The chip package in claim 179, wherein said patterned metal  
10 layer comprises a power bus connecting said first and second metal pads through said first  
and second ~~and third~~ openings.

189. (currently amended) The chip package in claim 179, wherein said patterned metal  
layer comprises a signal trace connecting said first and second metal pads through said  
first and second ~~and third~~ openings.

190. (previously presented) The chip package in claim 179 further comprising a passive device over said second polymer layer.

191. (previously presented) The chip package in claim 190, wherein said passive device  
20 comprises an inductor over said second polymer layer.

192. (previously presented) The chip package in claim 190, wherein said passive device comprises a capacitor over said second polymer layer.

25 193. (previously presented) The chip package in claim 190, wherein said passive device comprises a resistor over said second polymer layer.

194. (currently amended) The chip package in claim 179 further comprising a substrate

~~under said die and under said first and second portions, solder bump directly over said first polymer layer.~~

195. (currently amended) The chip package in claim ~~194, 179~~ wherein said substrate  
5 ~~comprises silicon, further comprising a gold bump directly over said first polymer layer.~~

196. (currently amended) The chip package in claim 179, wherein said patterned metal layer comprises electroplated copper, ~~further comprising an inductor comprising a portion directly over said first polymer layer.~~

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197. (currently amended) A chip package comprising:

~~a substrate;~~

a first polymer layer;

a die between a first portion of said first polymer layer and a second portion of said first polymer layer, wherein said die has a top surface substantially coplanar with a top  
15 surface of said first portion and with a top surface of said second portion;

~~an adhesive material joining a backside of said die to said substrate;~~

~~a first polymer layer on said substrate, wherein said die is in a first opening in said first polymer layer;~~

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a second polymer layer on said top surface ~~a front side of said die and on said top surfaces of said first and second portions; polymer layer, wherein a second opening in said second polymer layer is over a first pad of said die and exposes said first pad, and a third opening in said second polymer layer is over a second pad of said die and exposes said second pad; and~~

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a patterned metal layer over ~~on~~ said second polymer layer, over said top surface ~~front side of said die and over said top surfaces of said first and second portions, polymer layer,~~ wherein said patterned metal layer comprises electroplated copper, and wherein said patterned metal layer comprises a ground bus ~~connecting~~ connected to said a first metal

pad of said die through a first opening in said second polymer layer, and to a second metal pad of said die pads through a second opening in said second polymer layer, wherein said first metal pad is connected to said second metal pad through said ground bus; and ~~said second and third openings.~~

- 5        a metal bump directly over said top surface of said first portion, wherein said metal bump is connected to said die through said patterned metal layer.

198. (currently amended) The chip package in claim 197 further comprising an inductor  
10 over said second polymer layer. ~~comprising a portion directly over said first polymer layer.~~

199. (currently amended) The chip package in claim 197 further comprising a resistor  
15 over said second polymer layer. ~~comprising a portion directly over said first polymer layer.~~

200. (currently amended) The chip package in claim 197, wherein said first polymer layer  
comprises an epoxy.

201. (currently amended) The chip package in claim 197 further comprising a capacitor  
20 over said second polymer layer. ~~comprising a portion directly over said first polymer layer.~~

202. (previously presented) The chip package in claim 197, wherein said second polymer  
layer comprises polyimide.

25 203. (previously presented) The chip package in claim 197 further comprising a third polymer layer on said patterned metal layer.

204. (previously presented) The chip package in claim 197, wherein said second polymer layer comprises benzocyclobutene (BCB).

205. (currently amended) The chip package in claim 197, wherein said metal bump  
5 comprises further comprising a solder bump directly over said first polymer layer.

206. (currently amended) The chip package in claim 197 further comprising a substrate  
under said die and under said first and second portions. ~~passive device over said second~~  
10 ~~polymer layer.~~

207. (currently amended) The chip package in claim 206, wherein said substrate  
comprises silicon. ~~passive device comprises an inductor over said second polymer layer.~~

208. (currently amended) The chip package in claim 197 206, further comprising a filter  
15 over said second polymer layer. ~~wherein said passive device comprises a capacitor over~~  
~~said second polymer layer.~~